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Harrington & SMith , Attorneys At Law, LLC			EXAMINER	
4 Research Drive, Suite 202			STONE, ROBERT M	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/576,536	KARTTUNEN, JUHA	
	Examiner Robert M. Stone	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 16 July 2010.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-3,5-17 and 19-22 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-3,5-17 and 19-22 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-878)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 16 July 2010 has been entered.

Response to Amendment

2. The amendment filed on 16 July 2010 has been entered and considered by the examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 1-13, 15, 19, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshiki* (JP 2003062268) in view of *Yokoi* (US 4,542,903) and *Crudgington* (US 4,477,069).

As to **claim 1**, *Yoshiki* (Figs. 2, 4-7 and 14-17) discloses an apparatus comprising:

a display unit with information-indicating light units (gaming machine with lighting units 30 having LEDs 31 around the border of the display screen);

a controller (CPU21) configured to define control commands on the basis of a display unit application and an instantaneous view shown in the display unit (CPU21 determines a pattern of displayed information [0047] in order to inform the CPU12 how to interact with lighting units 30 [0048,0081]); and

a light driver (CPU12 [0048]) configured to control the information-indicating light units (for controlling the plurality of lighting units 30 containing LEDs 31 [0053]) based on the control commands (CPU12 controls the lighting units 30 according to controls sent from CPU21 [0081]), such that the information-indicating light units are arranged to indicate information concerning a display unit application object (lighting units 30 containing LEDs 31 are controlled by CPU12 to light and indicate an interaction of the display information with the lighting units around the edge of the display by synchronizing the emission of light with the display information [0013,0036,0063, 0081, 0084]) and the light units are located around the display unit (light units 30 containing LEDs 31 are arranged along all four sides of the display 4).

Yoshiki does not expressly disclose wherein the apparatus is a portable apparatus.

Yokoi discloses a portable gaming device (abstract; Figs. 1, 2, 3, 8, 20-21).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided a portable version of and/or increased the portability of the gaming device as taught by *Yokoi* in the gaming device of *Yoshiki*. The suggestion/motivation would have been to provide a gaming device that is as compact as possible [col. 1, lines 10-16 and lines 25-26].

Yoshiki in view of *Yokoi* does not explicitly disclose the indication of objects located only outside the current view of the display.

Crudgington (Fig. 3c) discloses a gaming system with multiple external indicators to indicate objects located only outside the current view of the display (located to the left and bottom of the display are indicator lights 30 which are used to indicate when in-game enemies are approaching. Additionally, illuminated display 31 outside the display region is used to provide feedback to the user informing of the number of team members remaining in the game. [col. 3, lines 63-68]).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided an indication of objects that are not currently in display screen as taught by *Crudgington* in the gaming device of *Yoshiki* as modified by *Yokoi*. The suggestion/motivation would have been to maintain the user's complete awareness of their surroundings regardless of

where they are currently looking including approaching danger to increase in-game lifetime thus increasing game pleasure.

As to **claim 9**, *Yoshiki* discloses a method comprising:

defining in a controller of a device a control command on the basis of a display unit application and an instantaneous view shown in the display unit in order to control information-indicating light units (controller CPU21 determines commands about display information regarding patterns of current display information in order to light up lighting units 30 so that they interact with the display information [0048,0063,0081]); and

controlling the information-indicating light units, which are located around the display unit (lighting units 30 containing LEDs 31 are located in the area surrounding the display 4), through a light driver based on the control command defined in the controller (driver CPU12 controls the lighting units 30 according to signals from controller CPU21 [0048, 0081]), such that information concerning a display unit application object of the display unit is indicated by means of the information-indicating light units (lighting units 30 containing LEDs 31 are controlled by CPU12 to light and indicate an interaction of the display information with the lighting units around the edge of the display by synchronizing the emission of light with the display information [0013,0036,0063, 0081, 0084]).

Yoshiki does not expressly disclose the device as being portable.

Yokoi discloses a portable gaming device (abstract; Figs. 1, 2, 3, 8, 20-21).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided a portable version of and/or increased the portability of the gaming device as taught by *Yokoi* in the gaming device of *Yoshiki*. The suggestion/motivation would have been to provide a gaming device that is as compact as possible [col. 1, lines 10-16 and lines 25-26].

Yoshiki in view of *Yokoi* does not expressly disclose the indication of objects located only outside the current view of the display.

Crudgington (Fig. 3c) discloses a gaming system with multiple external indicators to indicate objects located only outside the current view of the display (located to the left and bottom of the display are indicator lights 30 which are used to indicate when in-game enemies are approaching. Additionally, illuminated display 31 outside the display region is used to provide feedback to the user informing of the number of team members remaining in the game. [col. 3, lines 63-68]).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided an indication of objects that are not currently in display screen as taught by *Crudgington* in the gaming device of *Yoshiki* as modified by *Yokoi*. The suggestion/motivation would have been to maintain the user's complete awareness of their surroundings regardless of where they are currently looking including approaching danger to increase in-game lifetime thus increasing game pleasure.

As to **claim 19**, *Yoshiki* (Figs. 2, 4-7 and 14-17) discloses an apparatus comprising:

a processor (CPU21 and CPU12); and

memory (ROM22, RAM23, ROM13, RAM14, ROM17a-b, RAM16), the memory configured to, with the processor, cause the apparatus (ROM22 and RAM23 work with CPU21 for overall control of the display and then output information regarding the display to the LED control portion which has ROM13 and RAM14 working with CPU12 to interpret LED lighting [0047-0051,0055-0076,0079]) at least to:

define a controllable light unit group on the basis of information of a display unit application shown in the display unit and the display application object (CPU21 determines a pattern of displayed information [0047] in order to inform the CPU12 how to interact with lighting units 30 [0048,0081]), and;

generate certain control commands on the basis of the information of the display application of the display unit and the display application object in order to control a given light unit group for giving information about the display unit application object (CPU12 generates control commands for the light units based on commands received from CPU21 about display information regarding patterns of current display information and then uses those signals to drive the groups of lighting units 30 indicating display object interaction [0048,0063,0081]) wherein the light units are located around the display unit (light units 30 containing LEDs 31 are arranged along all four sides of the display 4).

Yoshiki does not expressly disclose the device as being portable.

Yokoi discloses a portable gaming device (abstract; Figs. 1, 2, 3, 8, 20-21).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided a portable version of and/or increased the portability of the gaming device as taught by *Yokoi* in the gaming device of *Yoshiki*. The suggestion/motivation would have been to provide a gaming device that is as compact as possible [col. 1, lines 10-16 and lines 25-26].

Yoshiki in view of *Yokoi* does not expressly disclose the indication of objects located only outside the current view of the display.

Crudgington (Fig. 3c) discloses a gaming system with multiple external indicators to indicate objects located only outside the current view of the display (located to the left and bottom of the display are indicator lights 30 which are used to indicate when in-game enemies are approaching. Additionally, illuminated display 31 outside the display region is used to provide feedback to the user informing of the number of team members remaining in the game. [col. 3, lines 63-68]).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have provided an indication of objects that are not currently in display screen as taught by *Crudgington* in the gaming device of *Yoshiki* as modified by *Yokoi*. The suggestion/motivation would have been to maintain the user's complete awareness of their surroundings regardless of

where they are currently looking including approaching danger to increase in-game lifetime thus increasing game pleasure.

As to **claim 2**, *Yoshiki* discloses a controller (CPU12) for generating control commands for the light units on the basis of the information transmitted by a display driver, to the light driver (CPU12 generates control commands for the light units based on commands received from CPU21 about display information regarding patterns of current display information and then uses those signals to drive the lighting units 30 [0048,0063,0081]).

As to **claim 3**, *Yoshiki* (Figs. 2, 4-7 and 14-17) discloses wherein in the surroundings of the display unit, there are at least two light units or light unit groups formed of single light units (multiple light units 30 containing LEDs 31 surround display screen 4 and can be controlled individually or in groups depending on the commands sent by CPU12 according to a pattern determined by CPU21 [0053, 0055, 0057, 0081]), placed so that the light units are arranged at an angle of 90 degrees with respect to each other (light units 30 containing LEDs 31 are arranged along all four sides of the display 4, thus each side is rotated 90 degrees from an adjacent side).

As to **claim 5**, *Yoshiki* discloses the light driver (CPU12 [0048]) configured to control the light units or the light unit groups formed of single light units (driver controls multiple light units 30 containing LEDs 31 that surround display screen 4 and can be controlled individually or in groups depending on the commands sent

by CPU12 according to a pattern determined by CPU21 [0053, 0055, 0057, 0081]).

As to **claim 6**, *Yoshiki* (Figs. 2, 4-7 and 14-17) discloses the controller and the light driver configured to control the light units according to the application shown in the display unit (emission of lighting units 30 is controlled by the light driver CPU12 according to driving signals, determined according to recognized patterns by CPU21, in order to synchronize the emission of light with the display information [0013,0036,0063, 0081, 0084]).

As to **claim 7**, *Yoshiki* discloses the controller configured to define the control commands of the light units to synchronize the light units with respect to the view (emission of lighting units 30 is controlled by the light driver CPU12 according to driving signals, determined according to recognized patterns by CPU21, in order to synchronize the emission of light with the display information [0013,0036,0063, 0081, 0084]).

As to **claim 8**, *Yoshiki* discloses the light driver configured to control the functions and properties of the light units according to the control commands generated by the controller (light driver CPU12 controls the driving of lighting units 30 based on signals from controller CPU21 [0048,0081]).

As to **claim 10**, *Yoshiki* discloses in the controller, there are generated functional commands to a light driver (emission of lighting units 30 is controlled by the light driver CPU12 according to driving signals, determined according to recognized patterns by controller CPU21 [0013,0036,0063, 0081, 0084]) in order

to control the light units on the basis of the information of the view in the display unit (order to synchronize the emission of light with the display information [0013,0036,0063, 0081, 0084]), transmitted by a display driver and the application of the display unit (the functional commands are transmitted by display driving controller CPU21 based on patterns recognized in the current application of the display unit).

As to **claim 11**, *Yoshiki* (Figs. 2, 4-7 and 14-17) discloses that the light units are arranged in the surroundings of the display unit (light units 30 containing LEDs 31 are arranged along all four sides of the display 4), at an angle of 90 degrees with respect to each other (light units 30 containing LEDs 31 are arranged along all four sides of the display 4, thus each side is rotated 90 degrees from an adjacent side), in order to indicate the direction, with respect to the view shown in the display unit, by the light units (lighting units 30 according to interactions from displayed objects and the directions in which they interact with the edge of the display where the lighting units are located; see the figure shooting at the edge of the screen and the man jumping where the lighting units indicate the direction of interaction).

As to **claim 12**, *Yoshiki* discloses that the light units are arranged in light unit groups, which are separately controlled by the light driver (multiple light units 30 containing LEDs 31 that surround display screen 4 can be controlled individually or in groups depending on the commands sent by CPU12 according to a pattern determined by CPU21 [0053, 0055, 0057,0081]).

As to **claim 13**, *Yoshiki* discloses that in the display unit, there are shown objects under observation (characters in Figs. 4-7 and 14-17 [0036, 0089]), and simultaneously the light units controlled by the light driver are used for generating information in the view of the display (emission of lighting units 30 is controlled by the light driver CPU12 according to driving signals, determined according to recognized patterns by CPU21, in order to synchronize the emission of light with the display information [0013,0036,0063, 0081, 0084]).

As to **claim 15**, *Yoshiki* (Figs. 4-7 and 14-17) discloses that the light driver is used for controlling a controllable light unit group (multiple light units 30 containing LEDs 31 surround display screen 4 and can be controlled individually or in groups depending on the commands sent by CPU12 according to a pattern determined by CPU21 [0053, 0055, 0057, 0081]), located in a given direction with respect to the view of the display unit (light groups are controlled according to the direction of interaction with the edge of the display [0089-0092]), so that the intensity of the light units is increased as the display unit application object approaches the display unit (lighting units 30 change from off to on when the object interacts with the edge).

As to **claims 20, 21, and 22**, *Yoshiki* (Figs. 4-7 and 14-17) discloses wherein the light units are light emitting diodes or organic light emitting devices (lighting units 30 contain plural LEDs 31 [0053]).

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshiki* (JP 2003062268) in view of *Yokoi* (US 4,542,903), *Crudgington* (US 4,477,069), and *Langlais* (US 5,184,956).

As to **claim 14**, *Yoshiki* (Figs. 4-7 and 14-17) discloses that the approaching of an object located inside the view of the display unit to the area of the view shown outside the display unit is indicated by generating in the light driver a sense stimulus by the light units that are located in the same direction with respect to the view as the display unit application object in question (characters within the display attempt to interact with an area outside the display screen 4 and lighting units 30 at the location of the attempted interaction light up indicating the direction of movement).

Yoshiki in view of *Yokoi* and *Crudgington* does not expressly disclose indicating the direction of approaching objects located outside the current view of the display that are approaching an area inside the current view of the display

Langlais (Figs. 2A, 2B, 4, and 5) discloses a gaming system with an external indicator to indicate the direction of approaching objects located outside the current view of the display that are approaching an area inside the current view of the display (rearview mirror displays 20, 25, and 26 display objects which the user has passed and that are approaching from behind which are not in the current view of display screen 18 since display 18 displays game information ahead or in front of the user while the rearview mirrors display objects behind the user).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have indicated direction of approaching objects as taught by *Langlais* in the gaming device of *Yoshiki* as modified by *Yokoi*. The suggestion/motivation would have been to maintain the user's complete awareness of their surroundings regardless of where they are currently looking and thus giving the user time to plan their next move before the opponent arrives.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshiki* (JP 2003062268) in view of *Yokoi* (US 4,542,903), *Crudgington* (US 4,477,069), and *Kawai* (US 20040229691).

Yoshiki discloses that the threatening factors of a game application represented in the view are indicated by adjusting the controllable light unit group that is located in the direction of the threatening factor with respect to the view by the light driver by emitting a given wavelength of light (controllable light units 30 are activated in Fig. 14 on the edge in the direction of the game threatening factors (bullets) emitting light of a certain wavelength (color)), and that the controllable light groups are arranged in multiple wavelengths (different colors around the edge [0053]).

Yoshiki in view of *Yokoi* and *Crudgington* does not expressly disclose indicating possible proceeding directions in the direction to proceed.

Kawai discloses an electronic game indicating possible proceeding directions to the user in the direction to proceed (Figs. 5-28; [0102,0110])

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have indicated the direction to proceed to the user as taught by *Kawai* in the gaming device of *Yoshiki* as modified by *Yokoi* and *Crudgington*. The suggestion/motivation would have been to increase the pleasure of the game by increasing user's chance of survival.

7. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Yoshiki* (JP 2003062268) in view of *Yokoi* (US 4,542,903), *Crudgington* (US 4,477,069), and *Hayashida* (US 6,409,596).

Yoshiki (Figs. 4-7 and 14-17) discloses that in the display application shown in the view, the display objects interaction activates the controllable light unit group located in the direction of interaction by the light driver in a given way defined in the application (driver CPU12 controls lighting units 30 [0048,0081] according to interactions from displayed objects and the directions in which they interact with the edge of the display where the lighting units are located; see the figure shooting at the edge of the screen and the man jumping where the lighting units indicate the direction of interaction).

Yoshiki in view of *Yokoi* and *Crudgington* does not expressly disclose indicating the direction of a searched target located outside the current view.

Hayashida discloses an electronic game with an indicator indicating the direction of a searched target located outside the current view (a radar screen 65 is a supplementary screen indicating a search of opponents surrounding the user

and indicating their location including opponents located behind the user outside of the current view ahead of the user; Figs. 6 and 9).

At the time of invention, it would have been obvious for a person of ordinary skill in the art to have indicated the direction of a searched target located outside the current view taught by *Hayashida* in the gaming device of *Yoshiki* as modified by *Yokoi* and *Crudgington*. The suggestion/motivation would have been to provide the user with information about an approaching opponent preventing surprise.

Response to Arguments

8. Applicant's arguments filed 16 July 2010 have been fully considered but they are not persuasive.

a. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, Applicant submitted that one of ordinary skill in the art would not be motivated to combine the

portability of *Yokoi* with the gaming machine of *Yoshiki*. Examiner respectfully disagrees. *Yoshiki* NEVER discloses that the gaming machine cannot be portable nor imply that such as true. Many games are being converted to compact/portable devices that users can carry to maximize the time they are able to enjoy the game. Thus, in view of the portable gaming device of *Yokoi* (abstract; Figs. 1, 2, 3, 8, 20-21), it would have been clear to one of ordinary skill to reduce the size of the display and proportionally the lighting units as shown in Fig. 14 of *Yoshiki* to that of a portable size such as *Yokoi* thus providing a very compact portable solution [col. 1, lines 10-16 and lines 25-26] to maximize the amount of time and ease of use thus maximizing user enjoyment.

b. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Therefore regarding the Applicant's submission that "there are no information-indicating light units in *Langlais*". Examiner respectfully disagrees. While *Langlais* does disclose mirror displays which require light for the display in order for the user to view it as previously cited, *Langlais* was not cited as teaching the "indicator lights" of the claim. The primary reference of *Yoshiki* was cited as teaching a gaming machine with lighting units 30 having LEDs 31 around the border of the display screen to provide user feedback.

9. Although Examiner has relied upon new reference *Crudgington* as disclosing a gaming system with multiple external indicators to indicate objects located only outside the current view of the display (located to the left and bottom of the display are indicator lights 30 which are used to indicate when in-game enemies are approaching. Additionally, illuminated display 31 outside the display region is used to provide feedback to the user informing of the number of team members remaining in the game. [col. 3, lines 63-68]); Examiner is in no way agreeing to Applicant's arguments regarding *Langlais* and the reference may be relied upon later.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Stone whose telephone number is (571)270-5310. The examiner can normally be reached on Monday-Friday 9 A.M. - 4:30 P.M. E.S.T. (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh D. Nguyen can be reached on (571)272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert M Stone/
Examiner, Art Unit 2629

/Chanh Nguyen/
Supervisory Patent Examiner, Art
Unit 2629